Task 01: Basic Docker Virtualization (6 Marks)

* Text, letter

  Description automatically generatedCreate a dockerized environment in your computer/ PC (Linux environment preferred. Can be hosted inside a VM) and run at least 3 well-known docker images from the docker hub (i.e., hello-world, BusyBox, Nginx, Redis, Alpine,...etc.).
* Show the running docker containers in your machine. Remove all the running containers and their images and show the list of images in the virtual domain.

Text

Description automatically generatedRun three images: hello-world, BusyBox and alpine. Because these images are simple examples so it exits automatically after running. I use 'docker ps -a' to show all exited containers.

Table

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Text

Description automatically generatedDelete containers using command 'docker rm':

Text

Description automatically generatedShow docker images:

Delete images:

* Follow the instructions at https://www.docker.com/blog/how-to-use-the-official-nginx-docker- image/ to run a basic Nginx web server in your PC/VM. Add a custom HTML message with your Group members’ names and run the server. Show the outcomes.

Run the basic Nginx web server:

Graphical user interface, text

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Text, letter

Description automatically generatedCreate a custom html page and run with -v flag to create a bind mount volume:

Graphical user interface, application, Word

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* Boot up a basic ubuntu container. Install any Linux package inside the container, such as nano or IP-Utils.

Start container:

Text, letter

Description automatically generatedInstall nano:

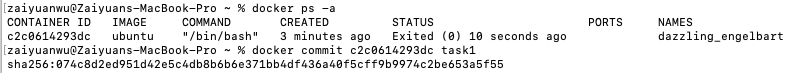
Text

Description automatically generated

* A picture containing graphical user interface

  Description automatically generatedCreate a directory with your group name inside the container. Inside the container, create a text file and include the group members’ names in it. Show the created directory and the file content.
* Commit the Ubuntu container and push its image to the docker hub. Mention the link to the exported docker hub image.

Graphical user interface, text

Description automatically generated

Link: https://hub.docker.com/r/willinie/task1/tags